

SAFETY DATA SHEET

SDS No: SDS-LDT-14/09

Revision No: 1

Date of issue: 25/06/12

1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY

Product name : Medium tip Metallic Marker
Name of the company : LEADERART INDUSTRIES (M) SDN. BHD.
Contact address : 7, Jalan Kukoh, Tampoi, 80350 Johor Bahru, Johor, Malaysia.
Tel : (07) 2364011 Fax : (07) 2361793

2. HAZARDS IDENTIFICATION

Note 1: ⁽¹⁾

Hazard classification of product ⁽²⁾ : Not classified as hazardous
Hazard symbols and signal words ⁽³⁾ : Not applicable
Risk / Safety (R/S) Phrases ⁽⁴⁾ : Not applicable
Health effect of skin contact with molten polymer, see Section 4.
Routes of exposure : Health effect of eye contact with ink, see Section 4.
Symptoms of exposure : Not applicable
Effects of acute exposure : Not applicable
Effects of chronic exposure : Not applicable
Conditions aggravated by exposure : Not applicable

3. COMPOSITION / INFORMATION ON INGREDIENTS

Note 2: ⁽⁵⁾

Ingredient name	CAS No.	EINECS No.	Conc' n %	Hazard symbols	R / S Phrases ⁽⁶⁾	LC50 (Species & route)	LD50 (Species & route)	Exposure limit values
Water-based Metallic ink	N/A	N/A	20.0	Irritant	R36	N/A	N/A	N/A
Polyethylene	9002-88-4	N/A	35.0	N/A	N/A	N/A	N/A	N/A
Polypropylene	9003-07-0	N/A	38.0	N/A	N/A	N/A	N/A	N/A
Polyester	N/A	N/A	5.0	N/A	N/A	N/A	N/A	N/A
Acrylic	N/A	N/A	2.0	N/A	N/A	N/A	N/A	N/A

4. FIRST AID MEASURES

Inhalation : Not applicable
Ingestion : Not applicable
Skin contact : If contact with molten product, treat as Thermal Burn injury. Thermal burns require immediate medical attention. Ink may cause eye irritation. Immediately flush with water continuously for at least 15 minutes. Seek medical attention as needed.
Eye contact : First aid is normally not required. If swallowed, obtain medical attention.
Additional information :

5. FIRE FIGHTING MEASURES

Conditions of flammability : Excessive heat at 200 Deg C.

Suitable extinguishing media :	Alcohol resistant foam, water spray of frog, dry chemical powder, carbon dioxide.
Extinguishing media to be avoided :	Do not use water jets since they could help to spread the flames.
Special fire fighting procedures :	Not required
Special protective equipment for fire fighters :	Respiratory & eye protection.
Unusual fire / explosion hazard :	Treat solid that can burn. Molded parts generally burn slowly with a low smoke density & flaming drips. Under certain conditions can burn with a high smoke density.
Hazardous combustion products :	Under Oxygen lean condition, Carbon monoxide & irritating smoke may be produced.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions :	Not required
Environmental precautions :	Not required
Methods for containment and cleaning up :	Pick up & collect in suitable container for disposal.
Special indications :	Not required

7. HANDLING AND STORAGE

Handling procedures and equipment :	Not required
Conditions for safe storage :	Store in a cool, dry and well ventilated place, away from direct heat or sunlight.
Precautions during handling and storage :	Avoid freezing, sparks & open flames. Do not store near strong oxidizing agents.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limit values of product ⁽⁷⁾ :	Not established.
Personal protective equipment to be used	
Gloves / Type :	Not required
Respiratory / Type :	Not required
Eye / Type :	Not required
Footwear / Type :	Not required
Clothing / Type :	Not required
Other / Type :	Not required
Specific engineering controls to be used :	Not required
Environmental exposure controls to be used :	Not required

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state :	Solid
Appearance and odour :	As per product characteristic
Odour threshold (ppm) :	Not applicable
Colour :	As per product characteristic
pH :	Not applicable
Boiling point :	Not applicable
Freezing point :	Not applicable
Melting point :	> 165 Deg C

Flammability (Solid, Gas) :	Not available
Flash point and method of determination :	Not applicable
Flammable limits	
UFL / UEL :	Not available
LFL / LEL :	Not available
Auto ignition temperature :	Not applicable
Explosion data :	Not applicable
Sensitivity to mechanical impact :	Not applicable
Sensitivity to static discharge :	Not applicable
Vapour pressure (mmHg) :	Not applicable
Specific gravity / Relative density (H2O=1) :	Less than 1
Solubility(ies) :	Insoluble
Coefficient of H2O / oil distribution :	Not applicable
Viscosity in centistokes or SUS (at 40 deg C or 100 deg F) :	Not applicable
Vapour density (Air = 1) :	Not applicable
Decomposition temperature :	More 250deg C
Evaporation rate (Butyl Acetate=1) :	Not applicable

10. STABILITY AND REACTIVITY

Chemical stability :	Product is stable.
Conditions of reactivity :	Excessive heat at 200 Deg C.
Incompatible materials and conditions :	Concentrated oxidizing or reducing agents. Under Oxygen lean condition, Carbon monoxide & irritating smoke may be produced.
Hazardous decomposition products :	
Hazardous polymerisation products :	Polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

LC50 / LD50 of product (Species and route) ⁽⁸⁾ :	Not applicable
Irritancy of product :	Ink may cause eye irritation.
Sensitisation to product :	Not a skin sensitiser.
Carcinogenicity	
Type of carcinogen :	Not carcinogenic
Organisation recognising carcinogen :	Not available
Mutagenicity :	Not mutagenic
Reproductive toxicity :	Not available
Teratogenicity / Developmental toxicity :	Not toxic
Toxicologically synergistic products :	Not available
Other toxicological information :	Refer Heading 2.

12. ECOLOGICAL INFORMATION

Eco-toxicity :	The product is not toxic.
Persistence and degradability in environment :	The product is not biodegradable.
Environmental fate :	Floats on water. The product is not expected to bioaccumulate.

13. DISPOSAL CONSIDERATIONS	
Waste disposal method : Handling of dangerous residues during disposal : Local / National regulations relating to waste :	Place in an appropriate disposal facility in compliance with local regulations. Not ordinally required. None
14. TRANSPORT INFORMATION	
Transport classification : Proper shipping name : Hazardous material description : PIN / UN number : Transport Hazard class : Packing group : Marine pollutant : Other applicable information : Special precautions during transport :	Non-hazardous for air, sea and road freight. Not regulated Not available Product is not included in the UN classification of dangerous substances. Not available None No None No additional remark.
15. REGULATORY INFORMATION	
Label information : National regulations / local recommendations :	None Not available
16. OTHER INFORMATION	
Full text of R phrases (Under Headings 2, 3 & 15) :	R36 Irritating to eyes
Sections revised in the SDS ⁽⁹⁾ : Other important information :	1) Changed informations in the Section 2 & 3. 2) Delete the full explanation of the R phrases for R10 & R38 in Section 16. Not for children under 3 years.

FOOTNOTE	
(1) Note 1	This section needs information on the product as a whole
(2) Hazard classification of product	International / National / Regional classification
(3) Hazard symbols and signal words	Hazard symbols: Graphical reproduction of the symbols in black and white or the name of the symbol e.g. flame, skull with crossbones. Signal words: Danger, Warning, Caution.... etc.
(4) R/S Phrases	Just specify the R/S phrases... The full explanation of the R/S phrases can be given under Heading 16.

(5)Note 2	The below values should be specific to the individual ingredients...and not the product as a whole.
(6)R / S Phrases	Just specify the R/S phrases...The full explanation of the R/S phrases can be given under Heading 16.
(7)Exposure limit values of product	These values are to be specified for the product as a whole.
(8)LC50 / LD50 of product (Species and route)	These values are to be specified for the product as a whole.
(9)Sections revised in the SDS	This information is needed only when the SDS is revised.